

Notice of Allowability**Application No.**

09/995,007

Applicant(s)

CARRASCO ET AL.

Examiner

Alexander H. Spiegler

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicants' after-final response, filed on May 20, 2004.
2. ☒ The allowed claim(s) is/are 90-104.
3. ☒ The drawings filed on 26 November 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date June 10, 2004 .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Continuation of Substance of Interview including description of the general nature of what was discussed:

Applicants' representative, Alan D. Miller, authorized the following proposed Examiner's Amendment, placing the application in condition for allowance:

Cancel Claims 56-70 and 87-89.

Insert Claims 90-104.

90. A method of determining whether a mammalian sodium/iodide symporter is expressed in a mammalian tissue, the method comprising contacting nucleic acid from the mammalian tissue with a probe and detecting whether the probe hybridizes to the nucleic acid, wherein detecting hybridization of the probe to the nucleic acid indicates that the mammalian sodium/iodide symporter is expressed in the mammalian tissue, wherein the probe comprises the nucleic acid sequence comprising nucleotides 110-1963 set forth in SEQ ID NO: 1 or its complement.

91. The method of claim 90, wherein the nucleic acid from the mammalian tissue is mRNA.

92. The method of claim 90, wherein the nucleic acid from the mammalian tissue is mRNA made into cDNA.

93. The method of claim 90, wherein the mammalian tissue is non-thyroid tissue.

94. The method of claim 90, wherein the nucleic acid probe further comprises a label.

95. The method of claim 94, wherein the label is selected from the group consisting of a radioactive label, biotin, and a fluorescent probe.

96. The method of claim 90, wherein the tissue is a human tissue.

97. A method for determining whether a mammalian sodium/iodide symporter is present in a sample, the method comprising contacting the sample with an antibody that is immunoreactive with the mammalian sodium/iodide symporter, wherein detecting binding of the antibody to the mammalian sodium/iodide symporter indicates that the mammalian sodium/iodide symporter is present in the sample, and wherein the antibody is immunoreactive with a protein having the amino acid sequence set forth in SEQ ID NO: 2.

98. The method of claim 97, wherein the antibody is a polyclonal antibody.

99. The method of claim 97, wherein the antibody is a monoclonal antibody.

100. The method of claim 97, wherein the antibody is labeled.

101. The method of claim 97, wherein the sample is a mammalian tissue.

102. The method of claim 101, wherein the mammalian tissue is thyroid tissue.

103. The method of claim 101, wherein the mammalian tissue is non-thyroid tissue.

104. The method of claim 101, wherein the mammalian tissue is human tissue.

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EXAMINER'S AMENDMENT

An amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it must be submitted no later than the payment of the Issue Fee.

Authorization for this Examiner's amendment was given in a telephone interview with Alan D. Miller on June 10, 2004.

Please amend the claims as follows:

Cancel Claims 56-70 and 87-89.

Insert Claims 90-104:

90. A method of determining whether a mammalian sodium/iodide symporter is expressed in a mammalian tissue, the method comprising contacting nucleic acid from the mammalian tissue with a probe and detecting whether the probe hybridizes to the nucleic acid, wherein detecting hybridization of the probe to the nucleic acid indicates that the mammalian sodium/iodide symporter is expressed in the mammalian tissue, wherein the probe comprises the nucleic acid sequence comprising nucleotides 110-1963 set forth in SEQ ID NO: 1 or its complement.

91. The method of claim 90, wherein the nucleic acid from the mammalian tissue is mRNA.

92. The method of claim 90, wherein the nucleic acid from the mammalian tissue is mRNA made into cDNA.

93. The method of claim 90, wherein the mammalian tissue is non-thyroid tissue.

94. The method of claim 90, wherein the nucleic acid probe further comprises a label.

95. The method of claim 94, wherein the label is selected from the group consisting of a radioactive label, biotin, and a fluorescent probe.

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96. The method of claim 90, wherein the tissue is a human tissue.
97. A method for determining whether a mammalian sodium/iodide symporter is present in a sample, the method comprising contacting the sample with an antibody that is immunoreactive with the mammalian sodium/iodide symporter, wherein detecting binding of the antibody to the mammalian sodium/iodide symporter indicates that the mammalian sodium/iodide symporter is present in the sample, and wherein the antibody is immunoreactive with a protein having the amino acid sequence set forth in SEQ ID NO: 2.
98. The method of claim 97, wherein the antibody is a polyclonal antibody.
99. The method of claim 97, wherein the antibody is a monoclonal antibody.
100. The method of claim 97, wherein the antibody is labeled.
101. The method of claim 97, wherein the sample is a mammalian tissue.
102. The method of claim 101, wherein the mammalian tissue is thyroid tissue.
103. The method of claim 101, wherein the mammalian tissue is non-thyroid tissue.
104. The method of claim 101, wherein the mammalian tissue is human tissue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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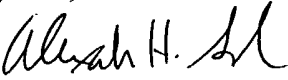
Correspondence


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander H. Spiegler whose telephone number is (571) 272-0788. The examiner can normally be reached on Monday through Friday, 7:00 AM to 3:30 PM.

If attempts to reach the examiner are unsuccessful, the primary examiner in charge of the prosecution of this case, Carla Myers, can be reached at (571) 272-0747. If attempts to reach Carla Myers are unsuccessful, the examiner's supervisor, Gary Benzion can be reached at (571) 272-0782.

Papers related to this application may be faxed to Group 1637 via the PTO Fax Center using the fax number (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Alexander H. Spiegler
June 10, 2004


CARLA J. MYERS
PRIMARY EXAMINER